

LT500 Series

GIS Data Collection

- Multiple models covering from centimeter to sub-meter accuracy
- 1 GHz high-speed CPU, 512 MB RAM, 16 GB flash memory
- 4.3" high resolution sunlight readable screen
- 3.75G network modem
- Optional bar code scanner



LT500H **L1/L2 GPS + GLONASS + BDS**

LT500H addresses up to centimeter level position accuracy, utilizing the internal network modem to access a local reference station network in RTK work mode.

LT500T **L1 GPS + GLONASS + BDS + Galileo**

LT500T is designed for high accuracy projects, requiring correctness to decimeter level. It is especially useful in utility applications as underground pipeline wapping and land records management. Meanwhile, it supports to enable the L1 RTK function through update code.

LT500U **L1 GPS + GLONASS or GPS + BDS**

Embedded with professional GNSS engine, LT500U supports to capture one-meter level accuracy data with SBAS differential correction signals or DGPS correction information from local reference station.



■ Technical Specifications

Comparison			
Type	LT500H	LT500T	LT500U
Channel	120	220	72
Satellite Signals	GPS: L1, L2	GPS: L1	GPS: L1 + GLONASS: L1
	GLONASS: L1, L2	GLONASS: L1	
	BDS: B1	BDS: B1 Galileo: E1	GPS: L1 + BDS: B1 (optional)
Update Rate	1 Hz	1 Hz, up to 5 Hz	1 Hz
Correction	RTCM2.x/RTCM3.x/RTCA/CMR/CMR+	RTCM2.x/RTCM3.x/CMR/CMR+/SCMRX	RTCM3.x
Output	NMEA 0183	NMEA 0183	NMEA 0183
Cold Start	< 50 s	< 45 s	< 50 s
Hot Start	< 35 s	< 30 s	< 35 s
Reacquisition	< 1 s	< 2 s	< 1 s
SBAS	50 cm	30 cm to 50 cm	1 m to 2 m
Differential Correction	DGPS: 40 cm RTK Fixed ⁽¹⁾ : 1 cm + 1 ppm (< 10 sec)	DGPS: 25 cm RTK Fixed: 2 cm + 1 ppm (> 5 min)	1 m to 2 m
Post-processing Static	Horizontal: 5 mm 1 ppm Vertical: 10 mm 1 ppm	Sub-meter	

System Configuration

- Operating System: Windows® Embedded Handheld 6.5
- Processor: 1 GHz, CORTEX® A8
- Flash Memory: 16 GB (512 MB RAM)
- External Memory: Micro SD, up to 32 GB
- Camera: 5 megapixel with auto-focus

Display

- Humidity: 100% condensation
- Dust and Water Proof: IP67

Electrical

- 4.3" sunlight readable touch screen
- Resolution: WVGA 480 X 800

Physical

- Size (L x W x H): 236 mm x 97 mm x 77 mm
(9.3 in x 3.8 in x 3.0 in)
- Weight: 897 g (31.6 oz) with battery
- Environment
 - Operating: -30°C to +70°C (-22°F to +158°F)
 - Storage: -40°C to +80°C (-40°F to +176°F)
- Dust and Water Proof: IP67
- Shock and Vibration: 1.2 m (3.9 ft) fall onto concrete, MIL-STD-810G

Communications

- Network Modem
 - UMTS/HSPA+ 800/850/900/1900/2100 MHz
 - EDGE/GPRS/GSM 850/900/1800/1900 MHz
- Bluetooth®: V2.1 + EDR
- WiFi: 802.11 b/g
- USB: Mini USB

Electrical

- Li-ion Battery Capacity: 2600 mAh, 11.1 V
- Operating Time⁽²⁾: Up to 13 (autonomous GNSS usage)
- Charging Time: 4 h (typical)

Sensors

- Gyroscope
- Laser plummet
- G-sensor
- Bar code scanner (optional)

(1) Accuracy and reliability specifications may be affected by multipath, satellite geometry and atmospheric conditions. Performances assume minimum of 5 satellites, follow up of recommended general GPS practices. (2) Operating time varies based on temperature.

Specifications are subject to change without notice.

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